



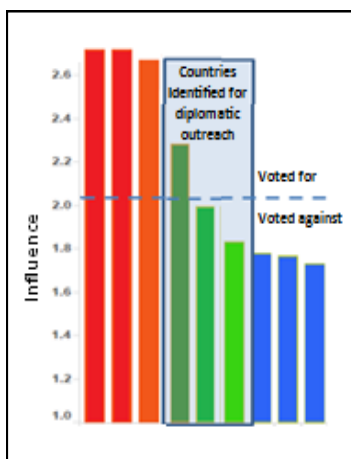
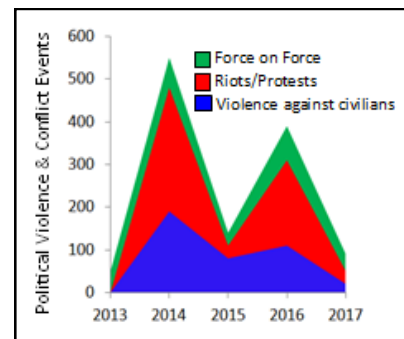
BUREAU OF CONFLICT AND STABILIZATION OPERATIONS

Anticipating, Preventing, and Responding to Conflict

DATA ANALYTICS

WHY DO WE NEED DATA ANALYTICS?

The Bureau of Conflict and Stabilization Operations (CSO) promotes evidence-based and data-driven processes to enhance policy formulation and execution to anticipate, prevent, and respond to conflict. Evidence-based analysis combines data, social science methods, and geo-spatial techniques with on-the-ground knowledge to understand context, people, and potential outcomes. CSO uses analysis to visualize conflicts, predict outcomes, identify gaps, outline priorities, and allocate resources. Employing conflict dashboards and policy trackers, the Bureau translates complex findings into actionable policy recommendations. Here is a sampling of how we utilize data analytics.



TO UNDERSTAND CONTEXT...

Statistical Trend Analysis: Determines if a series of events is random or follows a pattern.

Example: Is violence getting worse?

Regression Analysis: Determines if two factors are affecting each other. *Example: Does violence increase as oil prices drop?*

Indexing: Measures abstract concepts by identifying and combining contributing factors. *Example: How much influence does a country have in its region?*

Spatial Modeling: Maps different factors on a grid to determine if one factor influences another. *Example: Is violence concentrated near diamond mines?*

Spatial GDP: Estimates resources available to groups by using data and satellite imagery. *Example: If Boko Haram takes control of a new area, what do they gain?*

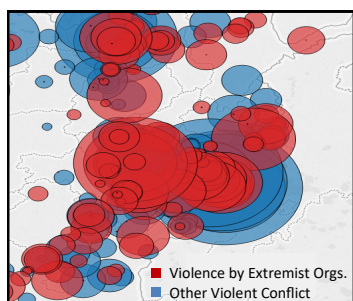
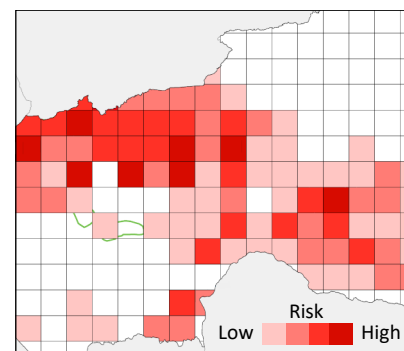
TO UNDERSTAND PEOPLE AND GROUPS....

Network Analysis: Determines important individuals, groups, and connections in a network. *Example: Who are the key individuals in a terrorist network?*

Operational Area Model: Estimates armed groups' area of operations by using event data and geophysical features. *Example: Where are armed groups active in Libya?*

Statistical Survey Analysis: Determines factors related to perceptions of interest. *Example: What are the characteristics of people supporting violent extremists?*

Cluster Analysis: Identifies distinct groups in a society based on shared perceptions. *Example: What are the main societal groups in Iraq?*



TO UNDERSTAND POTENTIAL OUTCOMES....

Agent Based Modeling: Estimates outcomes and identifies alternatives to understand the flexibility and influence of individuals. *Example: What agreement can be negotiated?*

Spatial Bargaining: Identifies areas of potential agreement by calculating the range of tradeoffs and influence. *Example: What are two groups willing to give up to work together?*

Game Theory: Determines gain/loss in a series of actions and identifies leverage points and alternatives. *Example: What happens if ISIS moves to one area instead of another?*